

## **Use Case Scenario: *Using the Data Model to Answer Education Questions and Review Data Business Practices***

### **Challenge<sup>1</sup>**

The Platte Valley School District, Weld Re-7 (CO), wants to improve business management of education data among the various stakeholders within the LEA that play a significant role in data identification, management, sharing, and reporting. The District wants to identify the stakeholders' data needs; improve the efficiency of data management, collection, and use; and increase communications and coordination among these stakeholders with regards to data. Given the currently existing data management inefficiencies, the district's policy and organizational structure driven by data silos, and the difficulties of scheduling meetings and reaching consensus among a diverse group of key stakeholders, the Platte District is eager to use an efficient and effective process to identify its data needs and design improved data management strategies.

### **Summary**

Glenn McClain, superintendent of the Platte Valley School District, devised the following processes to address the challenge:

- Glenn identifies and convenes a core group of administrators, teachers, program managers, and data input specialists to determine their current data management policies and procedures.
- The core group identifies the key stakeholders for the project, i.e. the various persons and roles in the school district that need to be involved in evaluating and developing data management processes, and a stakeholders' working group is formed.
- The stakeholders' working group generates a set of “education data questions” which, from each stakeholder’s perspective, need to be answered.
- The group identifies an initial list of data elements that are necessary in order to answer these key questions.
- The group then uses the Education Data Model Version 1: PK-12 to verify and supplement the list of data elements.
- The group performs a gap analysis between the data elements required for answering the key questions and the data elements currently available in the district’s data systems. The group devises a plan for how to add the missing data elements to the district’s data collections.
- After generating the revised core set of data needed by the district and its data stakeholders (such as teachers and administrators), the group revises the district’s current data management policies and procedures to maximize the stakeholders’ effectiveness and efficiency.

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<sup>1</sup> This use case example is meant only to illustrate the use of the Education Data Model in addressing the stated challenge. Other Forum documents, such as *Technology at Your Fingertips*, are available and can also be useful in addressing the challenge.

See the *Steps* section below for detail on how this was done.

### **Actors/Positions**

Glenn, the district's superintendent, first identified a Data Team to help him devise a strategy for the project. This team identified who needed to be at the table, when, and in what order. The Data Team also took ownership of the work of the project. Individuals came and left the Team as they were needed in the process.

#### Data Team

Superintendent	Building Administrator	Director of Technology
Data Input Specialist/Registrar	School Business Official	Counselor
Strategic Business Officer	Technical Director	Director of Achievement
Accountability Official	Educator/Teacher	Parent and Student

The Data Team also identified the following roles, which were involved in the evaluation process to validate whether their data needs were being sufficiently addressed:

- Support Services (Facilities Department, Transportation, Food Service)
- Personnel Services
- Special ED/ Board of Cooperative Educational Services (BOCES)
- Department Heads
- Health Services
- Safety

### **Steps**

1. Superintendent McClain sent out a communication to the identified Data Team members asking for their involvement in the project. He asked that each member to generate at least 10 questions they need to answer in their professional roles that require data from district software systems to answer them.
2. The first meeting of the Data Team was held. The questions were combined to create a master list. During the first meeting, the Team chose 5 of the questions as examples and identified the data elements required to answer them.
3. The Team browsed the Data Model and uncovered additional data elements that were not identified in the initial consideration of the five questions, but that should be collected as part of a more comprehensive data management strategy related to the questions. The additional data elements were identified by utilizing the "Relationship" section of the Data Model website, which depicts the conceptual interdependencies between education-relevant data elements.
4. Each member of the Data Team used the Data Model in the same manner to identify the data necessary to answer their original 10 questions. This was the first step in determining what the Data Team viewed as the set of data elements that are needed to perform their job effectively and efficiently.

5. The Team combined the data elements needed to answer each individual's 10 questions to define the district's information requirements. The Team then identified other stakeholders, outside of those originally involved, that should review the data management process being developed because of their "data ownership" or "data use" role with regards to the district's information requirements.
6. The Data Team combined input from all identified stakeholders into the final information requirements document. Based on the document, the district Data Manager:
  - a. Performed mapping and gap analysis between the various data systems in use in the district and the identified information requirements.
  - b. Using the NCES Handbook definitions within the Data Model, evaluated whether the proposed data elements and definitions were consistent with those in existing software systems in the district.
  - c. Summarized the results in a gap analysis document to be shared with Data Team as well as to be used in future RFPs for new district data systems.

This exercise provided the Data Team with a "broader view" perspective of the district's current data identification and management processes, the additional data elements required by the Team to improve their job effectiveness, and the impact adding these new elements would have on current data collections processes. The exercise also provided better information to the Team for reviewing the current district data management policies and procedures. As a result of the process, a revised set of data management policies and procedures was drafted and set in place by the district.